

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendment and following remarks is respectfully requested.

Claims 1-5 are pending. In the present amendment, Claim 1 is currently amended and no claims are added or canceled herewith. Support for the present amendment can be found in the original specification, for example, at page 3, lines 19-25, and in Figure 1. Thus, it is respectfully submitted that no new matter is added.

In the outstanding Office Action, Claims 1-5 were rejected under 35 U.S.C. § 103(a) as unpatentable over Renck et al. (U.S. Patent No. 6,815,022, hereinafter "Renck") in view of Sharp et al. (U.S. Patent No. 3,767,498, hereinafter "Sharp"); and Claims 1-5 were provisionally rejected on the ground of non-statutory obviousness-type double patenting over Claim 1 of co-pending U.S. Application No. 10/582,784 in view of Renck.

This amendment is submitted in accordance with 37 C.F.R. § 1.116 which, after final rejection, permits entering of amendments canceling claims, complying with any requirement of form expressly set forth in a previous Office Action, or presenting rejected claims in better form for consideration on appeal. The present amendment amends Claim 1 and only includes subject matter which was earlier presented. Thus, no new matter has been added, and this amendment does not raise new issues requiring further consideration and/or search. It is therefore respectfully requested that the present amendment be entered under 37 C.F.R. § 1.116.

Turning now to the rejection under 35 U.S.C. § 103(a), Applicants respectfully request reconsideration of this rejection and traverse this rejection, as discussed below.

Amended Claim 1 recites, in part, "the core is a 3-D structure formed from a sheet of polymeric paper," and "a binder layer is applied onto both sides of the sheet." It is

respectfully submitted that the cited references do not disclose or suggest every feature recited in amended Claim 1.

Renck describes a “multi-layer laminated structure is reinforced by adhesive bridges that extend through openings in the layer and tie together the layers on either side of the reinforced layer.”¹ However, it is respectfully submitted that Renck does not disclose or suggest a “sandwich panel core, wherein the core is **a 3-D structure** formed from polymeric paper, a binder layer is applied onto a top and a bottom of the core,” as recited in Claim 1 (emphasis added). It is respectfully submitted that a person of ordinary skill in the art would not recognize a multi-layer laminated structure, such as the type described in Renck, as disclosing the claimed sandwich panel core being a 3-D structure.

In accordance with the features of the claimed invention, the claimed sandwich panel core includes **only one sheet** of polymeric paper with a binder applied to both sides of the sheet. As stated in the specification at page 3, lines 26-27, “the binder layers bond in-between at locations of the holes 3 therefore forming 3-D structure working as a single whole in the core structure.”

Further, Renck does not disclose or suggest use of polymeric paper. The Office Action on page 3 asserts that “[i]t would have been obvious to one of ordinary skill in the art to have used a polymer paper...in view of the teachings of Sharp.” However, Sharp merely states that “the panel assembly 10 comprises a cellular or honeycomb core 12 which may be fabricated from a wide variety of flexible materials having low thermal conductivity.” Sharp then lists examples of papers that may be used, such as Kraft paper or Nomex. However, it is respectfully submitted that Sharp does not disclose or suggest that “paper and polymer papers have a similar ability to function as core materials in sandwich panels,” as asserted in the Office Action. Further, Sharp does not disclose or suggest the claimed sheet including

¹ See Renck, in the Abstract.

perforation holes in which “the binder layers bond to each other at a location of the perforation holes.” Thus, it is respectfully submitted that Sharp does not cure the deficiencies of Renck.

Accordingly, it is respectfully requested that the rejection of Claim 1, and all claims dependent thereon, as unpatentable over Renck in view of Sharp, be withdrawn.

In response to the provisional non-statutory obviousness-type double patenting rejection of Claims 1-5 over Claim 1 of U.S. Application No. 10/582,784 in view of Renck, Applicants respectfully traverse the rejection. The sandwich panel core described in Claim 1 of U.S. Application No. 10/582,784 is made with perforations along zigzag bending lines for bonding between the core and the skin along zigzag lines with the use of a composite adhesive material. The purpose of the perforation is to provide a location for placement of the composite adhesive material for the core-skin bonding. On the contrary, in Claim 1 of the present invention “the binder layers bond to each other at a location of the perforation holes.” Further, the claimed sandwich panel core is a 3-D structure made from a polymeric sheet with a binder attached to both sides of the sheet. The structure of Claim 1 is not described in Application No. 10/582,784. Additionally, as discussed above, Renck describes a multi-layer laminated structure not used in the claimed invention. Accordingly, it is respectfully requested that the double patenting rejection of Claims 1-5 be withdrawn.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. A Notice of Allowance is earnestly solicited.

Respectfully submitted,

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